

DESCARTES WAS WRONG: HOW DOES PSYCHOLOGICAL STRESS GET UNDER THE SKIN?

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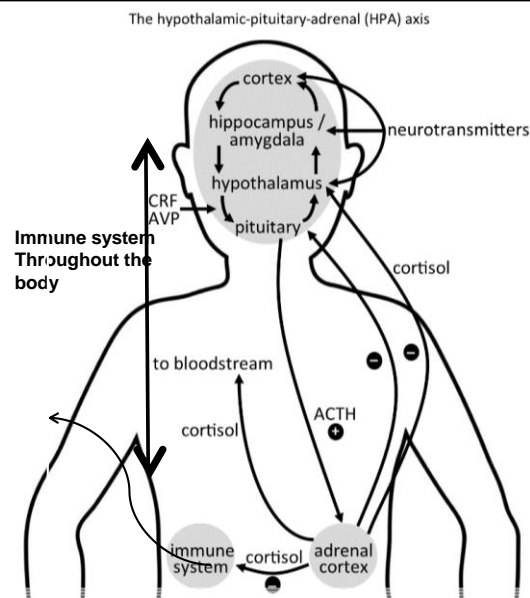
- Mind and body are actually distinct—or "mind-body dualism."
- The mind as a thinking and observing presence
- The body not thinking (extended)
- Partially a religious doctrine
- In creating minds, God would not need to create bodies. In creating bodies, God would not have to create minds



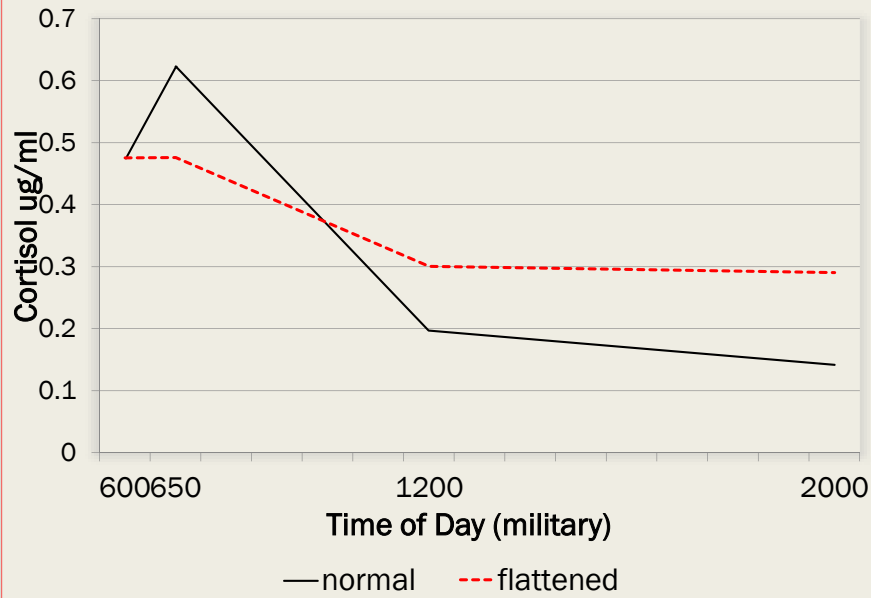
Stress and Coping Theory (Lazarus & Folkman)

- Stress is defined as an “imbalance between demands and resources.”
- Every person has skills and resources available to them
- Coping with stress is the use of these skills and resources
- Stress and Coping Theory is about the transaction between the stressors of life and our skills and resources
- Two-Step process
 1. The threatening tendency of the stress to the individual, and
 2. The assessment of resources required to minimize, tolerate or eradicate the stressor and the stress it produces

HPA Axis

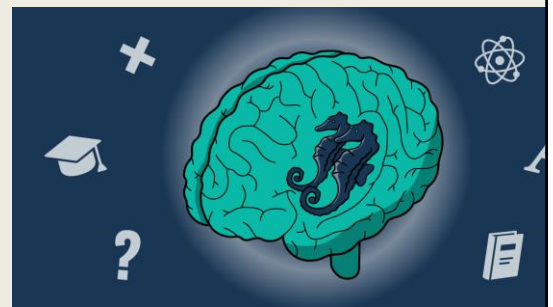


Cortisol Diurnal Rhythm



Moderating Stress Response

- Hippocampus
- Negative feedback
- Glucocorticoid receptors (MR1 and MR2)
- NfKb
- Chronic or severe stress may affect these systems



Killers of our ancestors

- Child mortality rate
- Death in childbirth
- Infectious disease
- Sabre tooth tigers

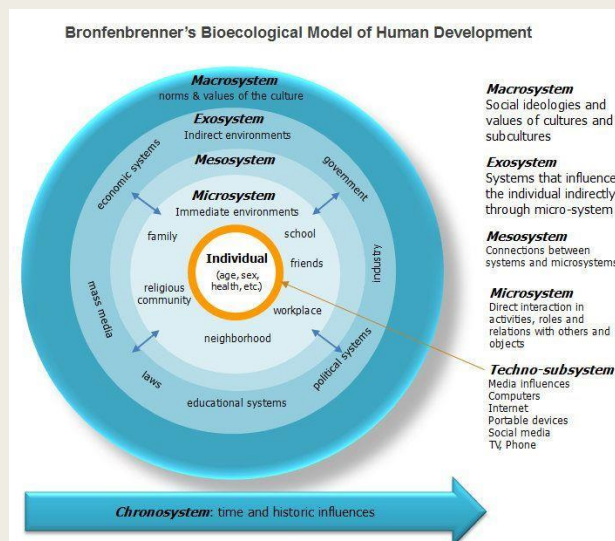


What Kills us today?

- Diabetes
- Heart disease
- Alzheimer's Disease
- Cancer
- *Inflammation*

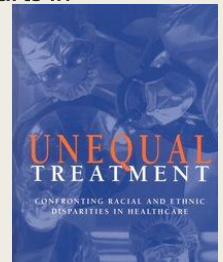


Bronfenbrenner's Biopsychosocial Model



Stress in Native Communities

- The stress of *intergenerational trauma* contributes to the erosion of the family and the tribe in general as well as affecting history and spiritual traditions (American Psychological Association, 2018)
- Age, educational level, and poverty have been implicated in increased risks of exposure to traumatic experiences (Hildago & Davidson, 2000)
- The stress of intergenerational trauma can affect one's identity, interpersonal skills, personal behavior, transmission of mores and values, and hope (Greywolf, 2011)
- Natives were more likely to witness a traumatic event, experience trauma to loved ones, and were victims of physical attacks than their US counterparts in the NCS (Tehee et al., 2017)
- Bias, stereotyping, prejudice, and clinical uncertainty on the part of health care providers may contribute to racial and ethnic disparities in health care (Institute of Medicine, 2003)



Stress in Native Communities

- *Acculturative stress* refers to the feeling of tension and anxiety that accompany efforts to adapt to the orientation and values of dominant culture (Rathus & Nevid, 2003). It can have an influence on physical and mental health disparities such as hypertension and depression (Kaholokula et al, 2010; Jang & Chiriboga, 2010)
- This is particularly alarming for Native people who have to negotiate between Native culture and the White world.
- All of these circumstances (and others) may be associated with Allostatic Load (McEwen, 1993)
- “When we have a population of people that feel disenfranchised and disconnected, from tradition and hope for a healthy future, that’s going to have an impact on social behavior...There’s so much diabetes, there’s a culture of diabetes.” (Un Natural Causes, 2019)

Stress and Diabetes

- Psychological stress may negatively influence engagement in risk-reducing lifestyle changes (physical activity and healthy eating) and stress-related physiology that increase diabetes risk) (Woods-Giscombe et al., In press; Brendalo et al., 2017)
- Higher stress is associated with detriments in healthy lifestyle changes and decreased healthy behaviors (e.g. exercise) and increased unhealthy lifestyle behaviors (e.g. excessive consumptions of food, alcohol, or nicotine)(Ng & Jefferey, 2003)
- hypothalamic-pituitary-adrenal (HPA)-axis activation and dysregulation, may have a direct negative impact on insulin resistance and glucose metabolism (Chrousos & Gold, 1998)
- The body may not be able to process the glucose released by your firing nerve cells if you have diabetes
- Constant stress from long-term problems with blood glucose can also wear you down mentally and physically

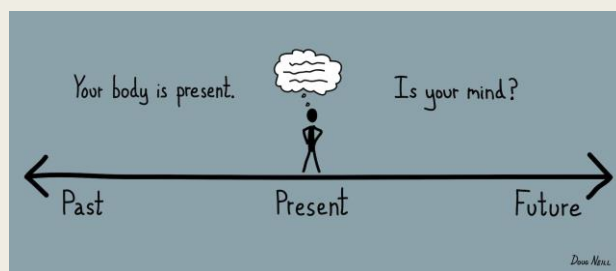
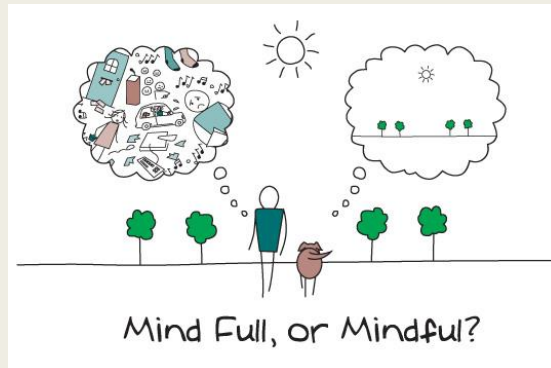
Treating Diabetes-Related Disorders

- Treating diabetes-related depression, anxiety, and eating disorders
- Managing weight and stress
- Improving treatment adherence
- Enhancing communication and increasing social support



Mindfulness

- Foundations of Mindfulness Practice
- Non-Judging
- Patience
- Beginner's Mind
- Trusting Ourselves
- Non-Striving
- Acceptance
- Letting Be (Letting Go)
- Mindful Eating



Native American Health

- Culturally centered research and clinical treatment (Proulx, 2009)
- Foundation for healing because culture provides meaning, purpose, and identity
- Integration of traditional treatments (e.g., medicine wheel, talking circles, medicine men and women)
- Predict the success of securing support from tribal leaders (Witko, 2006)

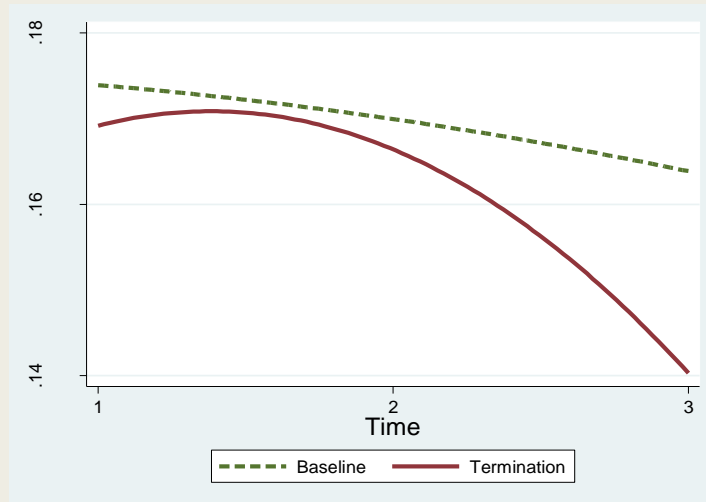
Native American Mindfulness

- Proulx (2009) noted that traditional elements of resilience should not be peripheral to mindfulness research and clinical interventions
- Where do mindfulness practices overlap with Native traditional healing practices?
- Awareness of the diversity of attitudes across Native cultures
- Not a one-size-fits-all approach



Le & Proulx, 2013

Figure 1. Differences in Cortisol Response Between Baseline and Termination in Response to Stressor



Le & Proulx, 2013

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Klamath Falls, Oregon
Arcata, California





In Conclusion...

- Encourage researchers to be cognizant and embody trust, gratitude, patience, beginner's mind, curiosity, non-judging, acceptance, and non-attachment in their research ethos
- Am I worthy of receiving valued knowledge from these communities?
- Native people should have a primary and visible role in the research

In Conclusion...

- Learn about the culture you are studying
- Understand the history of research in the community of interest
- Emphasize what your research will contribute to the community
- Work with a small group of advisors from the community
- Interact often with the community groups who are allies and/or advisors
- Show gratitude

Thank-you

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